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MAGNETIC RECORDING MEDIA WITH  
CU-CONTAINING MAGNETIC LAYERS

ABSTRACT OF THE DISCLOSURE

A magnetic recording medium including at least one Cu-containing magnetic recording layer (CuML) comprised of a Cu-containing magnetic alloy material selected from the group consisting of:

(a) a CoCrPtBCu alloy having a composition represented by the  
5 formula  $\text{Co}_{100-x-y-z-\alpha}\text{Cr}_x\text{Pt}_y\text{B}_z\text{Cu}_\alpha$ , wherein  $0 < x \leq ??$ ,  $0 < y \leq 30$ ,  $0 < z \leq 24$ ,  $0 < \alpha \leq 10$ , and  $x + z \geq 35$ ;

(b) a CoCrPtBCu alloy having a composition represented by the  
formula  $\text{Co}_{100-x-y-z-\alpha}\text{Cr}_x\text{Pt}_y\text{B}_z\text{Cu}_\alpha$ , wherein  $0 < x \leq 30$ ,  $0 < y \leq 30$ ,  $0 < z \leq 24$ ,  $0 < \alpha \leq 10$ , and  $x + z \geq 35$ ; and

10 (c) a CoCrTaCu alloy having a composition represented by the  
formula  $\text{Co}_{100-x-y-\alpha}\text{Cr}_x\text{Ta}_y\text{Cu}_\alpha$ , containing less than 30 at. % Cr, up to 8 at. % Ta, and up to 10 at. % Cu.